

Amendments to the Claims:

Please enter the following amendments and cancellations without prejudice or disclaimer.  
This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1 – 47. (Cancelled)

48. (Currently amended) A substantially pure nucleic acid comprising a sequence encoding a polypeptide comprising amino acids 36 to 284 of SEQ ID NO:4.

49. (Currently amended) A substantially pure nucleic acid comprising a sequence encoding a polypeptide that comprises an amino terminal truncation of SEQ ID NO:4, the amino terminal truncation consisting essentially of amino acids 36 to 284 of SEQ ID NO:4.

50. (Currently amended) A substantially pure nucleic acid comprising a sequence encoding a polypeptide that comprises an amino terminal truncation of SEQ ID NO:4, wherein the amino terminal truncation starts at an amino acid selected from the group consisting of having an amino acid terminus beginning at any one of amino acids 81 to 139 of SEQ ID NO:4.

51. (Currently amended) A substantially pure nucleic acid comprising a sequence encoding a polypeptide comprising an amino acid sequence at least 90% identical to:

(a) ~~a polypeptide consisting essentially of amino acids 36 to 284 of SEQ ID NO:4; or~~

(b) ~~a polypeptide an amino terminal truncation of SEQ ID NO:4 having an amino acid terminus beginning at any one of amino acids 81 to 139 of SEQ ID NO:4.~~

52. (Currently amended) The nucleic acid according to claim [[39]] 51, wherein said polypeptide comprises an amino acid sequence at least 95% identical to:

(a) ~~a polypeptide consisting essentially of~~ amino acids 36 to 284 of SEQ ID NO:4; or

(b) ~~a polypeptide~~ an amino terminal truncation of SEQ ID NO:4 having an amino acid terminus beginning at any one of amino acids 81 to 139 of SEQ ID NO:4.

53. (Currently amended) A substantially pure nucleic acid comprising a sequence encoding a polypeptide, wherein said nucleic acid hybridizes under high stringency conditions to the complement of a coding sequence, wherein the stringent conditions comprise washing steps using 2x SSC, 0.1% SDS at 65°C, and wherein the complement of said coding sequence is selected from the group consisting of:

(a) nucleotides 106 to 852 of SEQ ID NO: 3; and

(b) nucleotides 241 to 852 of SEQ ID NO: 3.

54 - 61. (Cancelled)

62. (Currently amended) The nucleic acid according to any one of claims 39, 41, 42, 46, 48 or 49 51, 52, or 53, wherein said encoded polypeptide has a characteristic selected from the group consisting of:

(a) binding to a cell surface receptor,

(b) having cytokine activity,

(c) forming a beta sheet, and

(d) altering a local immune response.

63. (Currently amended) The nucleic acid according to claim [[50]] 51, 52 or 53, wherein said polypeptide is capable of inducing apoptosis in an HT-29 colon carcinoma cell.

64. (Currently amended) A substantially pure nucleic acid comprising a sequence that encodes a ~~polypeptide~~ of SEQ ID NO:4, or a soluble fragment thereof [[,]] that is capable of binding to an HT-29 colon carcinoma cell and inducing apoptosis in said carcinoma cell.

65. (Currently amended) The nucleic acid according to any one of claims ~~36, 37, 38, 39, 41, 42 or 52~~ 48, 49, 50, 51, 52, 53, or 64, wherein said polypeptide is fused to an amino acid tag sequence.

66. (Currently amended) The nucleic acid according to any one of claims ~~36, 37, 38, 39, 41, 42 or 52~~ 48, 49, 50, 51, 52, 53, or 64, wherein the encoded polypeptide is fused to a type I or type II leader sequence.

67. (Currently amended) The nucleic acid according to any one of claims ~~36, 37, 38, 39, 40, 41, 42 or 52~~ 48, 49, 50, 51, 52, 53, or 64, operably linked to an expression control sequence.

68. (Currently amended) A host cell transformed with the nucleic acid according to any one of claims ~~36 to 52~~ 48, 49, 50, 51, 52, 53, or 64.

69. (Currently amended) The host cell according to claim [[56]] 68, wherein said host cell is a mammalian cell.

70. (Currently amended) The host cell according to claim [[57]] 69, wherein said mammalian cell is a human cell.

71. (Currently amended) A method of producing a substantially pure polypeptide comprising the steps of:

- (a) culturing the transformed host cell according to claim [[56]] 68 and;
- (b) isolating said polypeptide ~~from produced by~~ said host cell to obtain the substantially pure polypeptide.

72. (Currently amended) A method of producing a ~~substantially pure~~ polypeptide in an animal cell culture comprising the steps of:

- (a) introducing into said cell culture a vector comprising the nucleic acid according to any one of claims ~~36 to 49 or claim 52~~ 48, 49, 50, 51, 52, 53, or 64 and;
- (b) allowing said cell culture to live under conditions wherein said nucleic acid is expressed in said cell culture to produce the polypeptide, thereby providing an expressed polypeptide.

73. (Currently amended) The method according to claim [[60]] 72, wherein said animal cell culture is an insect cell culture or a mammalian cell culture.

74. (Currently amended) The method according to claim [[60]] 72, wherein said vector is a virus or a plasmid.

75. (Currently amended) A method of expressing a polypeptide in an animal cell culture comprising the steps of:

- (a) introducing into said cell culture a vector comprising a nucleic acid encoding a polypeptide of SEQ ID NO:4, or a soluble fragment thereof that is capable of binding to a HT-29 colon carcinoma cell and inducing apoptosis in said carcinoma cell, and
- (b) allowing said cell culture to live under conditions wherein said nucleic acid is expressed in said cell culture, thereby providing an expressed polypeptide.

76. (Currently amended) The method according to claim [[63]] 75, wherein said animal cell culture is an insect cell culture or a mammalian cell culture.

77. (Currently amended) The method according to claim [[63]] 75, wherein said vector is a virus or a plasmid.

78. (Currently amended) A substantially pure nucleic acid comprising ~~consecutive nucleotides that encode a human TREL polypeptide, wherein said TREL a sequence that encodes a polypeptide that~~ comprises the amino acid sequence of SEQ ID NO:4.

79. (Cancelled)

80. (Currently amended) A substantially pure nucleic acid comprising a sequence encoding a polypeptide, said sequence consisting essentially of SEQ ID NO:1 or SEQ ID NO:3, ~~said nucleic acid encoding a polypeptide, said polypeptide consisting essentially of SEQ ID NO:2 or SEQ ID NO:4.~~

81. (Currently amended) A substantially pure nucleic acid comprising a sequence that hybridizes under stringent conditions to SEQ ID NO:3, wherein said stringent conditions comprise washing steps using 2X SSC, 0.1% SDS at 65°C, and wherein said nucleic acid encodes a TREL polypeptide consisting essentially of SEQ ID NO: 4.

82. (Currently amended) The nucleic acid according to claim [[66]] 78, 80, 81 or 83, operably linked to an expression control sequence.

83. (Currently amended) The A substantially pure nucleic acid according to claim 70 comprising a sequence encoding a polypeptide, said sequence comprising SEQ ID NO:3.

84. (Currently amended) An isolated host cell transformed with the nucleic acid according to claim ~~70 or 71~~ 82.

85. (Currently amended) A method for producing a substantially pure ~~TRELL~~ polypeptide, the method comprising:

~~the steps of~~ culturing the host cell according to claim ~~[[72]]~~ 84; and isolating said ~~TRELL~~ polypeptide ~~from produced by~~ said transformed host cell to obtain a substantially pure ~~TRELL~~ polypeptide.

86. (Currently amended) A method of expressing a ~~TRELL~~ polypeptide in an animal cell culture comprising the steps of:

introducing into said cell culture a vector comprising a ~~the~~ nucleic acid ~~molecule~~ of claim 78, 80, 81 or 83 ~~having consecutive nucleotides that encode said~~ ~~TRELL~~ polypeptide, ~~wherein said~~ ~~TRELL~~ polypeptide ~~comprises the amino acid sequence of SEQ ID NO:4~~; and allowing said cell culture to live under conditions wherein said nucleic acid ~~molecule~~ is expressed in said cell culture, thereby providing an expressed polypeptide.

87. (Currently amended) The method according to claim ~~74 or 87~~ 86, wherein said animal cell culture is an insect cell culture or a mammalian cell culture.

88. (Currently amended) The method according to claim ~~74 or 87~~ 86, wherein said vector is a virus or a plasmid.

89. (Cancelled)

90. (Cancelled)

91. (Currently amended) The nucleic acid according to claim [[86]] 64, wherein said sequence encodes a soluble fragment of said TREL polypeptide comprises an amino terminus that begins between SEQ ID NO:4, wherein the soluble fragment is an amino terminal truncation that starts at an amino acid selected from the group consisting of amino acid numbers 81 and to 139 of SEQ ID NO:4.

92. (Currently amended) The nucleic acid according to claim [[79]] 91, wherein said soluble fragment of SEQ ID NO:4 said TREL polypeptide comprises amino acids acid numbers 81 to 284 of SEQ ID NO:4.

93. (Currently amended) The method according to claim [[75]] 86, wherein said mammalian cell culture is a human cell culture.

94. (Cancelled)

95. (Cancelled)

96. (Currently amended) The host cell according to claim [[72]] 84, wherein said host cell is a mammalian cell.

97. (Currently amended) The host cell according to claim [[72]] 96, wherein said mammalian cell is a human cell.

98. (Currently amended) A substantially pure nucleic acid that comprises a sequence that encodes a polypeptide consisting essentially of ~~hybridizes under stringent conditions to SEQ ID NO:3, wherein said stringent conditions comprise washing steps using 2x SSC, 0.1% SDS at 65°C, and wherein said nucleic acid encodes a TRELL polypeptide of SEQ ID NO:4, or a soluble fragment of SEQ ID NO:4 thereof, that is capable of binding to an HT-29 colon carcinoma cell and inducing apoptosis in said HT-29 colon carcinoma cell.~~

99. (Cancelled)

100. (New) A nucleic acid vector that comprises the nucleic acid of claim 51, 52, or 53.

101. (New) A method of producing a polypeptide in an isolated host cell, the method comprising:

- (a) providing an isolated host cell that contains a vector comprising the nucleic acid of claim 51, 52, or 53 and;
- (b) maintaining the isolated host cell under conditions wherein the nucleic acid is expressed, to thereby produce the polypeptide in the isolated host cell.

102. (New) The method of claim 101 wherein the host cell is prokaryotic.

103. (New) The method of claim 102 further comprising isolating said polypeptide produced by said host cell to obtain a substantially pure polypeptide.

104. (New) The method of claim 103 wherein the polypeptide is capable of binding to an HT-29 colon carcinoma cell and inducing apoptosis in said carcinoma cell.

105. (New) The method of claim 101 wherein the host cell is eukaryotic.

106. (New) The method of claim 105 further comprising isolating said polypeptide produced by said host cell to obtain a substantially pure polypeptide.

107. (New) The method of claim 106 wherein the polypeptide is capable of binding to an HT-29 colon carcinoma cell and inducing apoptosis in said carcinoma cell.

108. (New) The method of claim 71 wherein the host cell is prokaryotic.

109. (New) The method of claim 71 wherein the host cell is eukaryotic.

110. (New) The method of claim 72 further comprising isolating said polypeptide produced by said host cell to obtain a substantially pure polypeptide.

111. (New) The nucleic acid of claim 53, wherein the polypeptide is capable of binding to an HT-29 colon carcinoma cell and inducing apoptosis in said carcinoma cell.

112. (new) The nucleic acid of claim 51, wherein the amino acid sequence is at least 90% identical to (a) amino acids 36 to 284 of SEQ ID NO:4.

113. (new) The nucleic acid of claim 112, wherein the amino acid sequence is at least 95% identical to (a) amino acids 36 to 284 of SEQ ID NO:4.

114. (new) The nucleic acid of claim 53, wherein said coding sequence is (a) nucleotides 106 to 852 of SEQ ID NO: 3.